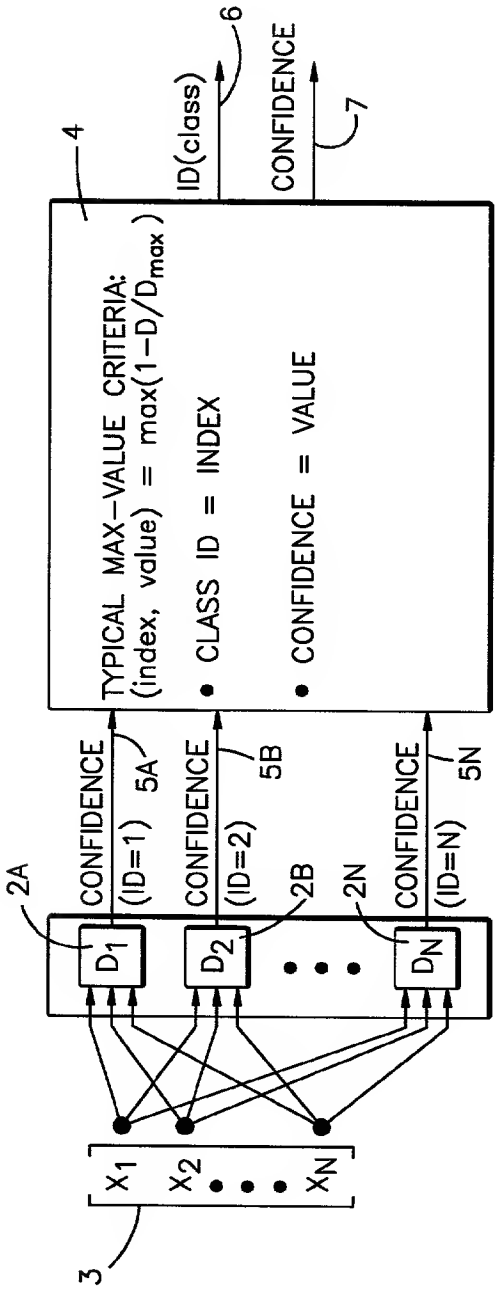


Fig.1
PRIOR ART

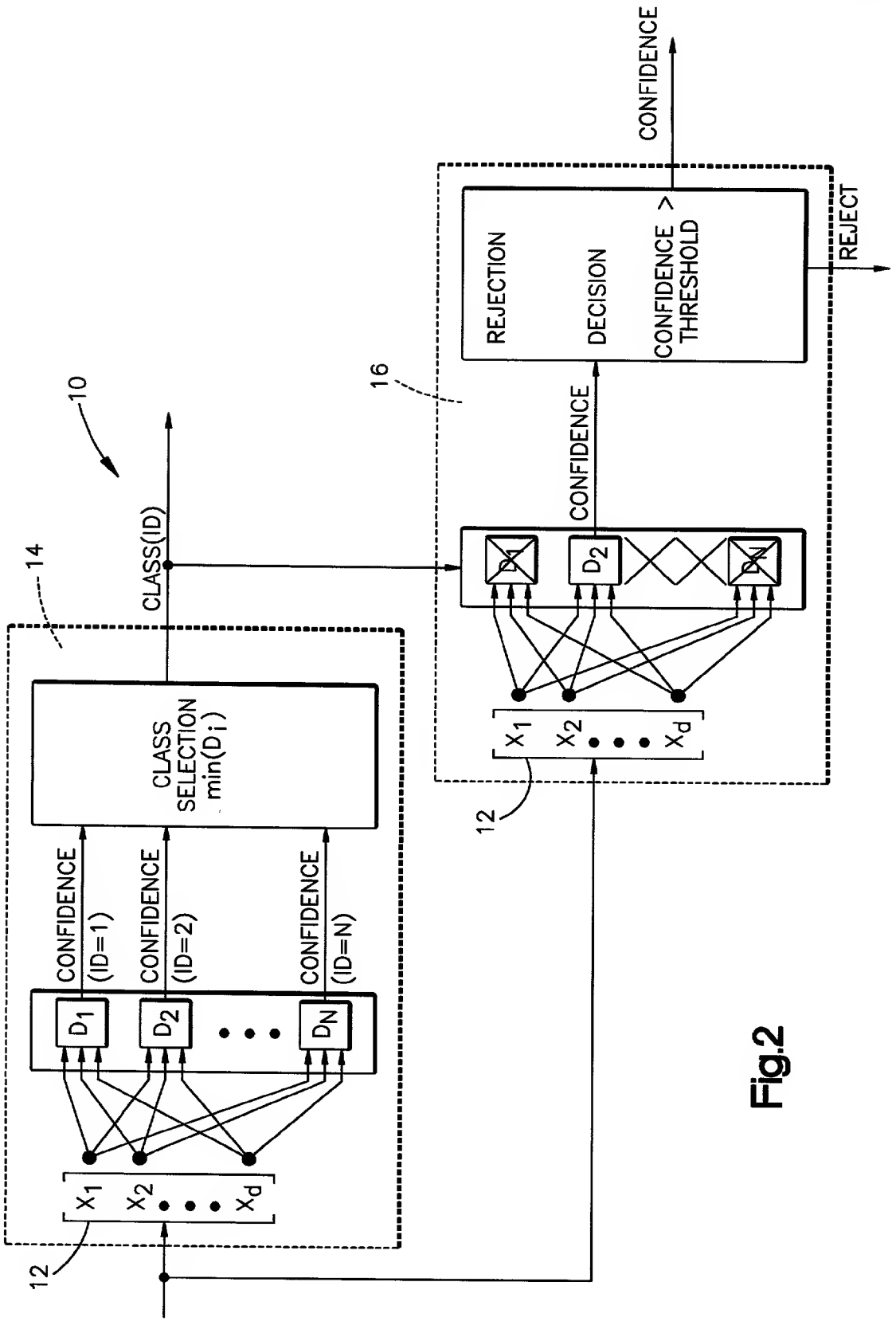
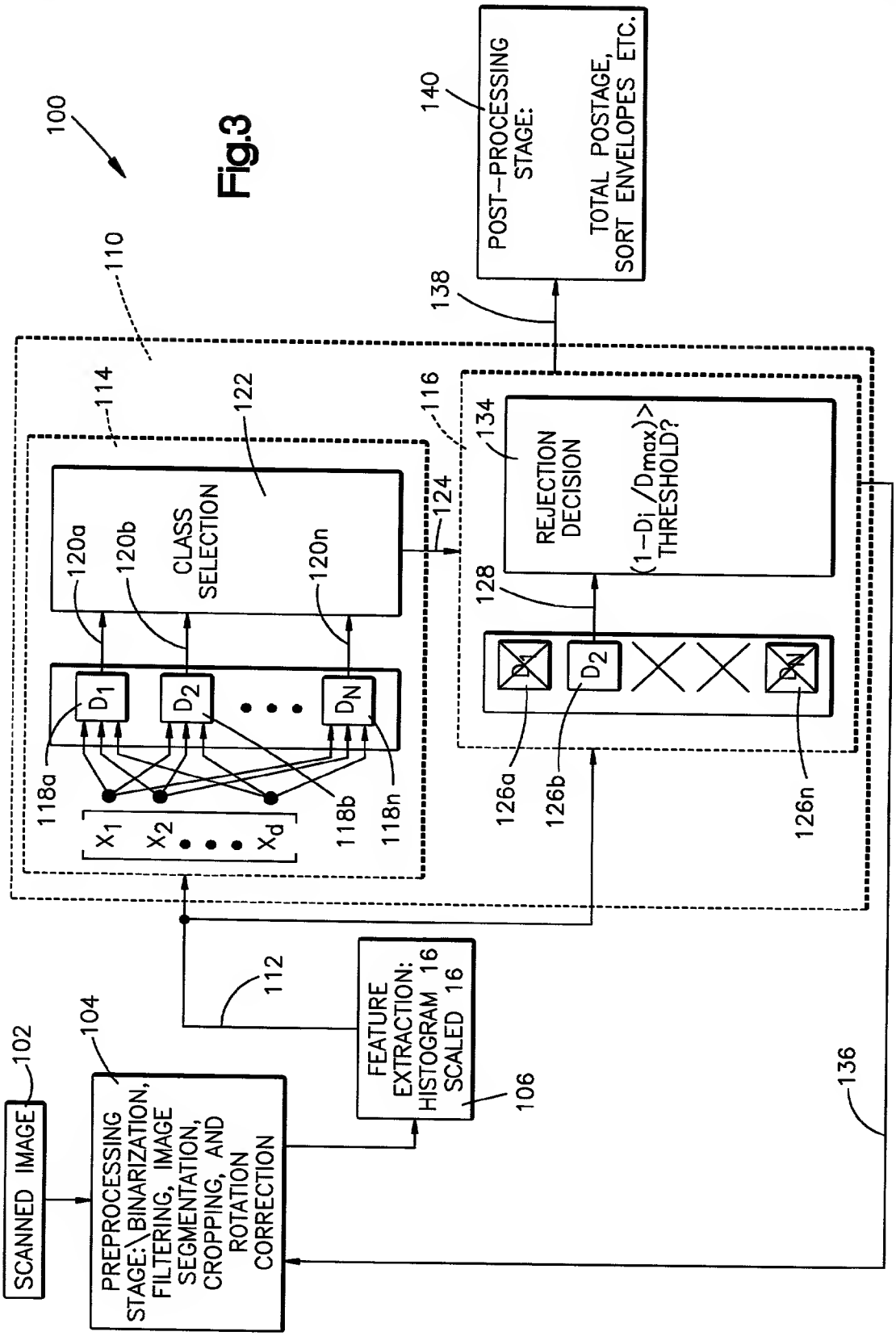

CONFIDENCE
REJECTION
DECISION
CONFIDENCE > THRESHOLD
REJECT
16
10
CONFIDENCE
CLASS(ID)
14
CLASS SELECTION min(D i)
CONFIDENCE (ID=1)
CONFIDENCE (ID=2)
CONFIDENCE (ID=N)
D1
D2
DN
X1 X2 • • • Xd
12

Fig.2

Fig.3


100
110
140
POST-PROCESSING STAGE:
TOTAL POSTAGE, SORT ENVELOPES ETC.
138
114
122
116
134
REJECTION DECISION
(1-Di /Dmax)> THRESHOLD?
124
CLASS SELECTION
120a
120b
120n
128
D1
D2
DN
118a
118b
118n
126a
126b
126n
X1
X2
Xd
112
FEATURE EXTRACTION: HISTOGRAM 16 SCALED 16
106
104
PREPROCESSING STAGE: BINARIZATION, FILTERING, IMAGE SEGMENTATION, CROPPING, AND ROTATION CORRECTION
102
SCANNED IMAGE
136

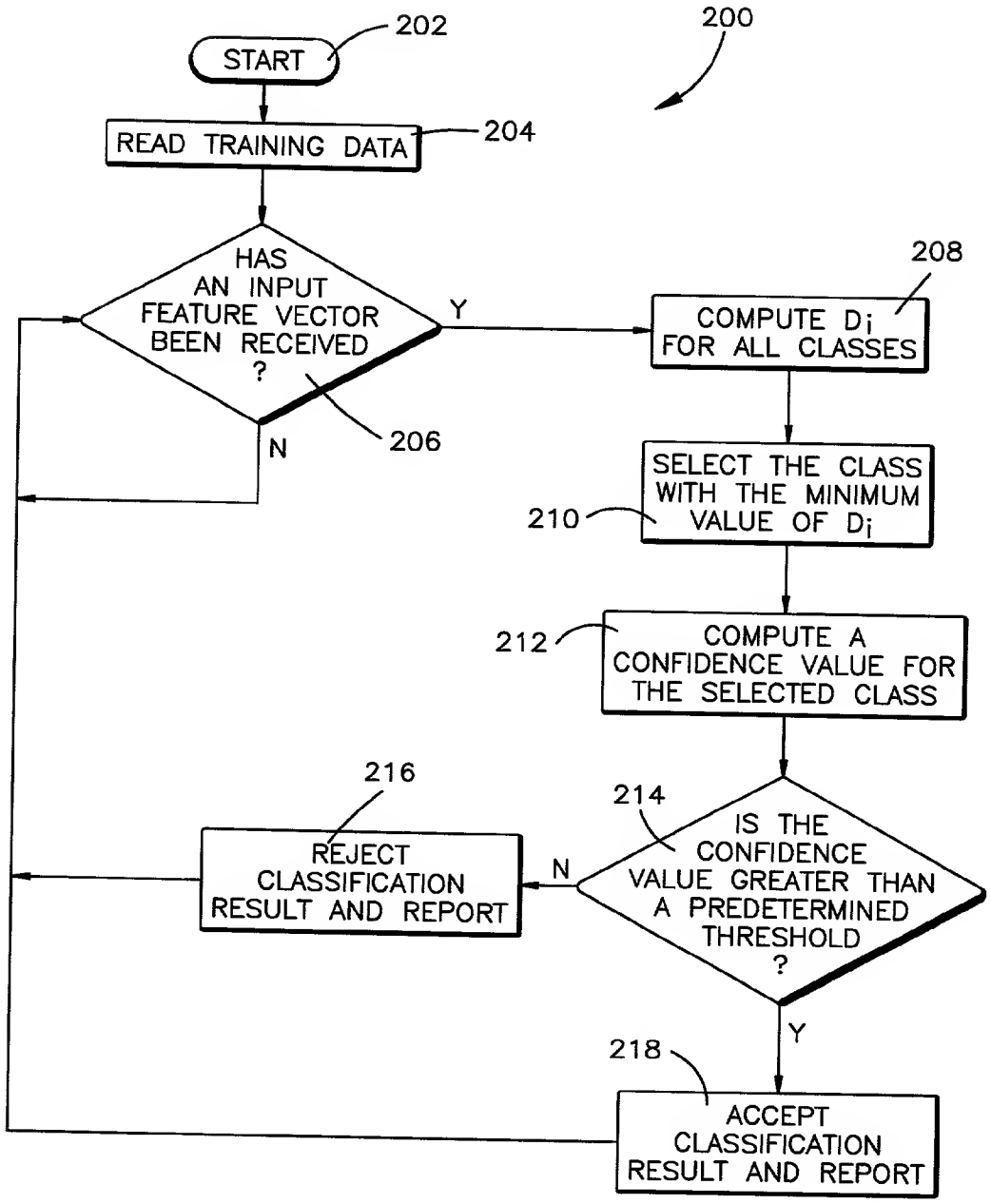

200
202
START
READ TRAINING DATA
204
HAS AN INPUT FEATURE VECTOR BEEN RECEIVED ?
Y
N
206
208
COMPUTE D_i FOR ALL CLASSES
SELECT THE CLASS WITH THE MINIMUM VALUE OF D_i
210
COMPUTE A CONFIDENCE VALUE FOR THE SELECTED CLASS
212
IS THE CONFIDENCE VALUE GREATER THAN A PREDETERMINED THRESHOLD ?
214
N
Y
REJECT CLASSIFICATION RESULT AND REPORT
216
ACCEPT CLASSIFICATION RESULT AND REPORT
218

Fig.4

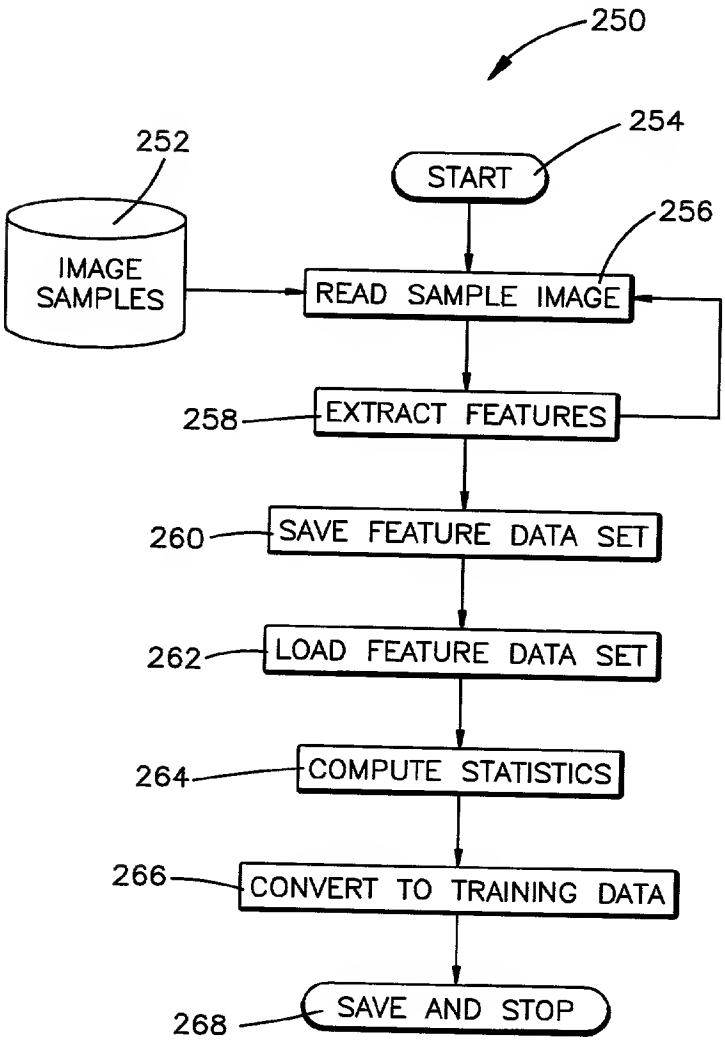

250
252
254
START
IMAGE SAMPLES
256
READ SAMPLE IMAGE
258
EXTRACT FEATURES
260
SAVE FEATURE DATA SET
262
LOAD FEATURE DATA SET
264
COMPUTE STATISTICS
266
CONVERT TO TRAINING DATA
268
SAVE AND STOP

Fig.5